

JC14 Rec'd PCT/PTO 29 MAR 2001

## CLAIMS

1. An operating system for managing a plurality of tasks, comprising:

a storing means for storing execution information containing execution states of hardware devices in respective tasks;

a request receiving means for receiving at least one request of a power-supply ON request and a power-supply OFF request to the hardware devices; and

a power-supply switching/controlling means for controlling process execution of the request based on the execution information, and not-performing the process execution of the power-supply ON request or the power-supply OFF request when other task is using the hardware devices if at least one task issues at least one of the power-supply ON request and the power-supply OFF request to at least one hardware device.

2. An operating system for managing a plurality of tasks, comprising:

a storing means for storing power-saving mode information of hardware devices in respective tasks;

a request receiving means for receiving a power-saving mode switching request; and

a power-saving mode switching/controlling means for controlling process execution of the request based on the

power-saving mode information, and setting a power-saving mode based on the power-saving mode information of a switched task when the task is switched.

3. An operating system according to claim 2, wherein the power-saving mode switching/controlling means can set/change the power-saving mode based on the power-saving mode information during the execution of the task.

4. An operating system according to claim 2 or 3, further comprising a priority comparing means for comparing execution priorities of the tasks or priorities of the power-saving mode information, and

wherein the power-saving mode switching/ controlling means sets/changes the power-saving mode based on a compared result of the priorities during the execution of the task.

5. An operating system for managing a plurality of tasks, comprising:

a storing means for storing power-saving mode information of hardware devices in respective tasks and power-saving mode information of a concerned operating system itself;

a request receiving means for receiving a power-saving mode switching request; and

a power-saving mode switching/controlling means for controlling process execution of the request based on the power-saving mode information, and setting/ changing a

power-saving mode by comparing the power-saving mode information of the task with the power-saving mode information of the operating system itself.

6. An operating system for managing a plurality of tasks, comprising:

a storing means for storing power-saving mode information of hardware devices in respective tasks and power-saving mode information of a concerned operating system itself;

a request receiving means for receiving a power-saving mode switching request; and

a power-saving mode switching/controlling means for controlling process execution of the request based on the power-saving mode information, and setting/ changing a power-saving mode by comparing the power-saving mode information of a switched task with the power-saving mode information of the operating system itself when the task is switched.

7. An operating system for managing a plurality of tasks, comprising:

a storing means for storing periodic-timer information of hardware devices in respective tasks;

a request receiving means for receiving a periodic-timer switching request; and

a periodic-timer switching/controlling means for

controlling process execution of the request based on the periodic-timer information, and setting a periodic-timer based on the periodic-timer information of a switched when the task is switched.

8. An operating system according to claim 7, wherein the periodic-timer switching/controlling means can set/change the periodic-timer based on the periodic-timer information during the execution of the task.

9. An operating system according to claim 7 or 8, further comprising a priority comparing means for comparing execution priorities of the tasks or priorities of the periodic-timer information, and

wherein the periodic-timer switching/controlling means sets/changes the periodic-timer based on a compared result of the priorities during the execution of the task.

10. An operating system for managing a plurality of tasks, comprising:

a storing means for storing periodic-timer information of hardware devices in respective tasks and periodic-timer information of a concerned operating system itself;

a request receiving means for receiving a periodic-timer switching request; and

a power-saving mode switching/controlling means for controlling process execution of the request based on the periodic-timer information, and setting/changing a



a request receiving means for receiving at least one request of a power-supply ON request and a power-supply OFF request to the hardware devices; and

a power-supply switching/controlling means for controlling process execution of the request based on the execution information, and not-performing the process execution of the power-supply ON request or the power-supply OFF request when other operating system is using the hardware devices if at least one operating system issues at least one of the power-supply ON request and the power-supply OFF request to at least one hardware device.

14. A virtual computer system for executing/controlling a plurality of operating systems, comprising:

a storing means for storing power-saving mode information of hardware devices in respective operating systems;

a request receiving means for receiving a power-saving mode switching request; and

a power-saving mode switching/controlling means for controlling process execution of the request based on the power-saving mode information, and setting a power-saving mode based on the power-saving mode information of a switched operating system when the operating system is switched.

15. A virtual computer system according to claim 14, wherein the power-saving mode switching/controlling means



a plurality of operating systems, comprising:

a storing means for storing power-saving mode information of hardware devices in respective operating systems and power-saving mode information of a concerned virtual computer system itself;

a request receiving means for receiving a power-saving mode switching request; and

a power-saving mode switching/controlling means for controlling process execution of the request based on the power-saving mode information, and setting/ changing a power-saving mode by comparing the power-saving mode information of a switched operating system with the power-saving mode information of the virtual computer system itself when the operating system is switched.

19. A virtual computer system for executing/controlling a plurality of operating systems, comprising:

a storing means for storing periodic-timer information  
of hardware devices in respective operating systems;

a request receiving means for receiving a periodic-timer switching request; and

a periodic-timer switching/controlling means for controlling process execution of the request based on the periodic-timer information, and setting a periodic-timer based on the periodic-timer information of a switched when the operating system is switched.





23. A virtual computer system for executing/controlling a plurality of operating systems, comprising:

a storing means for storing periodic-timer information of hardware devices in respective operating systems and periodic-timer information of a concerned virtual computer system itself;

a request receiving means for receiving a periodic-timer switching request; and

a periodic-timer switching/controlling means for controlling process execution of the request based on the periodic-timer information, and setting/changing a periodic-timer by comparing the periodic-timer information of a switched operating system with the periodic-timer information of the virtual computer system itself when the operating system is switched.